Executive Summary

- Fresh produce growers, shippers, and their trade organizations are concerned that the wave of mergers among grocery retailers may reduce the competitiveness of the retail grocery industry - both on the buying and selling sides.
- This study represents a comprehensive analysis of retailers' ability to set noncompetitive prices in the fresh apple, table grape, fresh California orange, and Florida grapefruit markets in both their commodity purchases and retail sales. In addition to evaluating retailers' price setting ability, we also evaluate other dimensions of price performance, including where in the marketing channel the price is set, the extent to which changes in price are transmitted through the channel, and the extent to which retailers hold retail prices fixed.
- The data used in this analysis consist of two years (1998 and 1999) of weekly retail-scanner price and sales data from six major geographically dispersed metropolitan markets-Albany, Atlanta, Chicago, Dallas, Los Angeles, and Miami. Within each market, most major retail chains are represented in the data. At the shipper level, our data consist of shipping-point prices and volumes obtained from either the USDA or individual commodity commissions. These data are supplemented with data from a variety of other sources to account for transportation costs, marketing costs, and variations in factors that are critical to the demand or supply of each commodity.
- Preliminary analyses of the retail and shipping-point price data find that: (1) prices for semi-perishable fruits are formed at the shipping point; (2) retail prices respond more rapidly to shipping-point price increases than to declines, although this result was less significant for apples than for the other commodities; (3) retail prices are fixed relative to the variation that occurs at the shipper level. These latter two results are consistent with retailers' possessing some control over prices in both the commodity and retail markets, while the first suggests that retailers determine the price they pay for fruit before they set the price they charge to consumers.
- If retailers are able to charge noncompetitive prices to consumers, or pay noncompetitive prices to growers, then there must be some way that they agree among themselves, albeit tacitly, to not undercut each other in consumer markets nor outbid each other in product markets. We test for such agreements using a statistical model of fresh fruit pricing based on the reasoning that rival retailers use price thresholds (trigger prices) to instigate punishments for those who cheat on price maintenance agreements. We estimate this model by using an approach that allows for the possibility that prices do indeed follow a "step-like" path over time, where retail prices (shipper-level prices) fall (rise) during periods of punishment and then return to the collusive path once order is restored.
- The results vary by commodity. For apples, we find evidence of both buyer and seller power that is both statistically and economically significant in virtually all market / chain pairs. For fresh grapes, we find strong evidence of retailers' ability to set price in consumer markets, but little support of this same power in input markets. Retailers also appear to possess a considerable degree of control over the prices consumers pay for oranges, but little control over grower prices. Grapefruit buyers exercise a significant degree of buying power in roughly 60 percent of the sample cases, but consistently set imperfectly competitive prices in the output market.
- Retailer power to set prices in both input and output markets tends to fall with the amount of commodity sold. We interpret this as evidence that periodic promotions serve as facilitating mechanisms for the tacitly cooperative agreement followed by rival retailers. This conclusion is supported by the fact that the frequency of punishments is similar to the frequency of these promotional periods and by our observation that some chains exhibit imperfectly competitive behavior, while others do not.
- Future research in this area should focus on areas of specific and emerging concern among government antitrust officials, consumer groups, and grower associations. Specifically, data on off-invoice fees should be gathered by appropriate government oversight agencies.